promptly the requested circuit, and consistent with our findings of impairment. A critical component of nondiscriminatory access is preventing the imposition of any undue gating mechanisms that could delay the initiation of the ordering or conversion process. Unlike the situation before the Commission when it issued the *Supplemental Order Clarification*, which only addressed EEL conversions, new orders for circuits are subject to the eligibility criteria. Due to the logistical issues inherent to provisioning new circuits, the ability of requesting carriers to begin ordering without delay is essential. 1900

624. Before accessing (1) a converted high-capacity EEL, (2) a new high-capacity EEL, or (3) part of a high-capacity commingled EEL as a UNE, a requesting carrier must certify to the service criteria set forth in Part VII.B.2.b in order to demonstrate that it is a bona fide provider of qualifying service. We do not specify the form for such a self-certification, but we readopt the Commission's finding in the *Supplemental Order Clarification* that a letter sent to the incumbent LEC by a requesting carrier is a practical method.¹⁹⁰¹

b. Auditing

- 625. As a threshold matter, we set forth basic principles regarding carriers' rights to undertake and defend against audits. However, we recognize that the details surrounding the implementation of these audits may be specific to related provisions of interconnection agreements or to the facts of a particular audit, and that the states are in a better position to address that implementation. For example, to the extent that the parties dispute the definition of an "independent" auditor and whether a given party satisfies the test for independence, the more appropriate forum for this determination is a state commission. 1903
- 626. We conclude that incumbent LECs should have a limited right to audit compliance with the qualifying service eligibility criteria. In particular, we conclude that incumbent LECs may obtain and pay for an independent auditor to audit, on an annual basis,

¹⁸⁹⁹ No certification is necessary for requesting carriers to obtain access to loops, transport, subloops, and other stand-alone UNEs, as well as EELs combining lower-capacity loops, although carriers must provide a qualifying service over those UNEs to obtain them. *See supra* Part VII.B.

¹⁹⁰⁰ If a requesting carrier certifies that it will provide qualifying services over high-capacity EELs in accordance with the Commission's rules, an incumbent LEC that wishes to challenge the certification may not engage in self-help by withholding the facility in question. The success of facilities-based competition depends on the ability of competitors to obtain the unbundled facilities for which they are eligible in a timely fashion. Thus, an incumbent LEC that questions the competitor's certification may do so by initiating the audit procedures set forth below.

¹⁹⁰¹ Supplemental Order Clarification, 15 FCC Rcd at 9602-03, para. 29.

¹⁹⁰² See, e.g., BellSouth Opposition, CC Docket No. 96-98 at 2 (filed June 3, 2002) (reporting that BellSouth filed a complaint with the Georgia Commission on May 13, 2002 requesting the Georgia Commission to direct NuVox to allow the audit to commence immediately).

¹⁹⁰³ See NuVox Petition at 6-7.

compliance with the qualifying service eligibility criteria. We conclude that an annual audit right strikes the appropriate balance between the incumbent LECs' need for usage information and risk of illegitimate audits that impose costs on qualifying carriers. The independent auditor must perform its evaluation in accordance with the standards established by the American Institute for Certified Public Accountants (AICPA), which will require the auditor to perform an "examination engagement" and issue an opinion regarding the requesting carrier's compliance with the qualifying service eligibility criteria. We note that, because the concept of materiality governs this type of audit, the independent auditor's report will conclude whether the competitive LEC complied in all material respects with the applicable service eligibility criteria. Consistent with standard auditing practices, such audits require compliance testing designed by the independent auditor, which typically include an examination of a sample selected in accordance with the independent auditor's judgment.

- 627. To the extent the independent auditor's report concludes that the competitive LEC failed to comply with the service eligibility criteria, that carrier must true-up any difference in payments, convert all noncompliant circuits to the appropriate service, and make the correct payments on a going-forward basis. In addition, we retain the requirement adopted in the *Supplemental Order Clarification* concerning payment of the audit costs in the event the independent auditor concludes the competitive LEC failed to comply with the service eligibility criteria. Thus, to the extent the independent auditor's report concludes that the competitive LEC failed to comply in all material respects with the service eligibility criteria, the competitive LEC must reimburse the incumbent LEC for the cost of the independent auditor. We expect that this requirement should provide an incentive for competitive LECs to request EELs only to the extent permitted by the rules we adopt herein.
- 628. Similarly, to the extent the independent auditor's report concludes that the requesting carrier complied in all material respects with the eligibility criteria, the incumbent LEC must reimburse the audited carrier for its costs associated with the audit. We expect that

¹⁹⁰⁴ See NuVox Petition at 2 (proposing that incumbent LECs obtain and pay for the services of an independent third party auditor).

Letter from John J. Heitmann, Counsel for NuVox, to Michelle Carey, Chief, Competition Policy Division, Wireline Competition Bureau, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 6 (filed Jan. 10, 2003) (NuVox Jan. 10, 2003 EELs and Auditing Ex Parte Letter) (proposing that Commission should require AICPA-compliance auditor to perform such audits). See American Inst. of Certified Pub. Accountants, STATEMENTS ON STANDARDS FOR ATTESTATION ENGAGEMENTS No. 10, at § 6.30 (Jan. 2001) (AICPA ATTESTATION STANDARDS). The AICPA also has standards and other requirements related to standards for determining the independence of an auditor shall govern the audit of requesting carrier compliance.

¹⁹⁰⁶ AICPA ATTESTATION STANDARDS at §§ 6.36 (explaining concept of materiality), 6.64 (explaining reporting issues related to material noncompliance).

¹⁹⁰⁷ Supplemental Order Clarification, 15 FCC Rcd at 9603-04, para. 31 (requiring competitive LECs to "reimburse the incumbent if the audit uncovers non-compliance with the local usage options.").

We note that audited carriers should account for the staff time and other appropriate costs for responding to the audit (e.g., collecting data in response to the auditor's inquiries, meeting for interviews, etc).

this reimbursement requirement will eliminate the potential for abusive or unfounded audits, so that incumbent LEC will only rely on the audit mechanism in appropriate circumstances. We further expect that these reimbursement requirements will ensure the audit process (and importantly, the resolution of any issues arising out of any audits) occurs in a self-executing manner with minimal regulatory involvement.

629. Although we do not establish detailed recordkeeping requirements in this Order, we do expect that requesting carriers will maintain the appropriate documentation to support their certifications. For instance, to demonstrate satisfaction of the first category for high-capacity EELs (authorization to provide voice service), we anticipate that state certification would be the most prevalent form of documentation, but that evidence of registration, tariffing, filing of fees, or other regulatory compliance would be adequate where there is no state certification requirement. To verify that the EEL circuit terminates into a section 251(c)(6) collocation, circuit facility assignment on the order would be sufficient supporting evidence. The local interconnection component of the third criterion can be established after examination of the governing interconnection agreement and the physical circuit connections. We emphasize that these records are only examples of the documentation that carriers should keep, and not intended to be an exhaustive list. Due to the variation in telecommunications systems and technology, and to provide flexibility to competitive LECs in establishing the most efficient architectural arrangements to provide local voice service, we do not adopt any of the specific documentation requirements proposed by some carriers in this proceeding. 1910

D. Modification of Existing Network

1. Background

- 630. In *Iowa Utilities Board*, the Eighth Circuit held that section 251(c)(3) requires "unbundled access only to an incumbent LEC's existing network not to a yet unbuilt superior one." Specifically, the Eighth Circuit explained that incumbent LECs can be required to modify their facilities "to the extent necessary to accommodate interconnection or access to network elements," but cannot be required "to *alter substantially* their networks in order to provide *superior* quality interconnection and unbundled access." ¹⁹¹²
- 631. In the *Triennial Review NPRM*, the Commission sought comment on its authority to require incumbent LECs to engage in activities necessary to activate loops that are not

¹⁹⁰⁹ See Letter from Julia O. Strow, Vice President – Regulatory & Legislative Affairs, Cbeyond, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (filed Jan. 6, 2003).

See, e.g., Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 1 (filed Feb. 13, 2003) (Qwest Feb. 13, 2003) Proposed EELs Safe Harbors Ex Parte Letter) (listing proposed documentation requirements, including the Qwest-designated "26 code" for each local interconnection trunk group).

¹⁹¹¹ Iowa Utils. Bd. v. FCC, 120 F.3d at 813.

¹⁹¹² Id. at 813 n.33 (emphasis added).

currently activated in the network.¹⁹¹³ The Commission also asked about the extent to which incumbent LECs have an obligation to modify their existing networks in order to provide access to network elements.¹⁹¹⁴ Commenters identified several specific issues regarding the interpretation of the Eighth Circuit's holding, most notably in which situations incumbent LECs have responded to an order for high-capacity loop by attaching equipment and facilities to its network, or could issue a "no facilities available" response; whether carriers must remove equipment from a line in order to condition it; and the extent to which specially constructed transmission facilities are subject to unbundling obligations. To resolve these related questions about the scope of the incumbent LEC network that must be unbundled and which modifications constitute "construction," and because they share a fundamental relationship to the definition of the network, we address them together in this section.

2. Discussion

a. Routine Network Modifications to Existing Facilities

- 632. We require incumbent LECs to make routine network modifications to unbundled transmission facilities used by requesting carriers where the requested transmission facility has already been constructed. By "routine network modifications" we mean that incumbent LECs must perform those activities that incumbent LECs regularly undertake for their own customers. Routine modifications, however, do not include the construction of new wires (i.e., installation of new aerial or buried cable) for a requesting carrier. The routine modification requirement that we adopt today resolves a controversial competitive issue that has arisen repeatedly, in both this proceeding and in the context of several section 271 applications, and is designed to provide competitive carriers with greater certainty as to the availability of unbundled high-capacity loops and other facilities throughout the country.
- 633. Parties in the record disagree where the boundary exists between, on one hand, modifying the loop element to provide competitive LECs with access to all the functions of that element, 1915 and, on the other, requiring substantial alteration of the loop facility to provide superior quality access. In particular, competitive LECs assert that certain incumbent LECs have taken an exceedingly narrow interpretation of their obligations to furnish high-capacity loops and request that the Commission clarify the scope of the loop unbundling obligation. We conclude that incumbent LECs, in provisioning high-capacity loop facilities to competitors, must make the same routine modifications to their existing loop facilities that they make for their own customers. This conclusion is consistent with the Eighth Circuit's ruling. Specifically, requiring incumbent LECs to engage in activities necessary to activate loops that are not currently activated

¹⁹¹³ Triennial Review NPRM, 16 FCC Rcd at 22805, para. 52.

¹⁹¹⁴ *Id.* at 22811-12, paras. 65-66.

¹⁹¹⁵ See Iowa Utils. Bd. v. FCC, 120 F.3d at 808-09 (holding that providing access to a network element includes the full functionality of that element).

¹⁹¹⁶ See, e.g., NewSouth Reply at 38.

in the network complies with the Eighth Circuit's holding that the obligations imposed by sections 251(c)(2) and 251(c)(3) include modifications to the incumbent LEC's facilities to the extent necessary to accommodate access to existing network elements -- in this case, high-capacity loops. Were we not to adopt such a requirement, the incumbent LECs would have the ability to dictate the parameters of their unbundling requirements and thereby readily thwart competitors' ability to obtain access to high-capacity loops.

634. Due to the continually evolving and dynamic nature of telecommunications networks, however, we reject the argument that our rule should list the precise electronics that the incumbent LEC must add to the loop in order to transform a DS0 voice-grade loop to an unbundled DS1 loop. Rather, our operating principle is that incumbent LECs must perform all loop modification activities that it performs for its own customers. By way of illustration, we find that loop modification functions that the incumbent LECs routinely perform for their own customers, and therefore must perform for competitors, include, but are not limited to, rearrangement or splicing of cable; ¹⁹¹⁸ adding a doubler or repeater; ¹⁹¹⁹ adding an equipment case; ¹⁹²⁰ adding a smart jack; ¹⁹²¹ installing a repeater shelf; adding a line card; and deploying a new multiplexer or reconfiguring an existing multiplexer. ¹⁹²²

¹⁹¹⁷ Iowa Utils, Bd. v. FCC, 120 F.3d at 813 n.33. Because the Eighth Circuit struck down the Commission's "superior quality" rules and that decision is final, we conform our regulations accordingly. See also NewSouth Reply at 40. NewSouth also proposes that the Commission clarify that "existing facilities" includes incumbent LEC facilities available in the existing service area where the request is made, not just facilities available for the specific origination and termination points for the element requested. NewSouth Comments at 40. Rather than adopting such a geographic test, however, we conclude that the routine modification requirement described herein more accurately defines an incumbent LEC's responsibilities, and, further, is more administratively practical.

¹⁹¹⁸ Letter from Stephen W. Crawford, General Counsel, El Paso Global Networks to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 2 (filed Dec. 17, 2002) (El Paso Dec. 17, 2002 Ex Parte Letter).

Although a digital signal loses its shape as it transverses a circuit due to noise and attenuation, a repeater can read the weakened and distorted signal and retransmit it at the proper level of signal strength. NEWTON'S TELECOM DICTIONARY 623 (defining "repeater"). A DS1 loop generally requires line repeaters to be placed approximately every mile along its cable route in order to maintain signal integrity. Virginia State Corporation Commission Staff Reply at 4.

Line repeaters are housed in apparatus cases, and cable pairs are either spliced into a case to serve a specific end user via an assigned service terminal, or are pre-assigned along a route with splicing occurring at or near the end user's service terminal in order to access the needed cable pairs. *Id.* at 4-5.

Mpower Reply at 30. A smart jack is a device installed on the customer premises that tests the integrity of DS1 circuits, and is activated remotely from the central office without having to dispatch a technician to the site.

NEWTON'S TELECOM DICTIONARY 677 (18th ed. 2002) (defining "smart jack").

Letter from Mary C. Albert, Vice President – Regulatory and Interconnection, Allegiance, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (dated Sept. 30, 2002) (Allegiance Sept. 30, 2002 Ex Parte Letter), in Letter from Mary C. Albert, Vice President – Regulatory Interconnection, Allegiance, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 1, 2002); El Paso Dec. 17, 2002 Ex Parte Letter, Declaration of Javier Galindo (El Paso Galindo Decl.) at paras. 10, 15; see also Petitions of WorldCom, Inc., Cox Virginia Telcom, Inc., and AT&T Communications of Virginia, Inc. Pursuant to Section (continued....)

- 635. The record reveals that attaching routine electronics, such as multiplexers, apparatus cases, and doublers, to high-capacity loops is already standard practice in most areas of the country. Moreover, performing such functions is easily accomplished. The record shows that requiring incumbent LECs to make the routine adjustments to unbundled loops discussed above that modify a loop's capacity to deliver services in the same manner as incumbent LECs provision such facilities for themselves is technically feasible 1924 and presents no significant operational issues. In fact, the routine modifications that we require today are substantially similar activities to those that the incumbent LECs currently undertake under our line conditioning rules. Specifically, based on the record, high-capacity loop modifications and line conditioning require comparable personnel; can be provisioned within similar intervals; and do not require a geographic extension of the network. 1927
- 636. We do not find, however, that incumbent LECs are required to trench or place new cables for a requesting carrier. Requests for altogether new transmission facilities, whether serving an existing customer or along a new route, demand far more planning, engineering, and (Continued from previous page)

252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes With Verizon Virginia, Inc. and For Expedited Arbitration, CC Docket Nos. 00-218, 00-249, 00-251, 17 FCC Rcd 27039, 27283 n.1658 (WCB 2002) ("Verizon cannot refuse to provision a particular loop by claiming that multiplexing equipment is absent from the facility. In that case, Verizon must provide the multiplexing equipment, because the requesting carrier is entitled to a fully functioning loop."); see also Letter from Patrick J. Donovan, Counsel for Cbeyond, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (filed Nov. 23, 2002) (Cbeyond Nov. 23, 2002 Ex Parte Letter).

The record reflects that different incumbent LECs perform varying degrees of network modifications when provisioning unbundled high-capacity loops. See, e.g., Letter from Patrick J. Donovan, Counsel for Cbeyond, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (Cbeyond Dec. 16, 2002 No Facilities Ex Parte Letter), Declaration of Richard Batelaan at paras. 8-9 (filed Dec. 16, 2002) (discussing the different "no facilities" policies of Qwest, SBC, and Verizon).

¹⁹²⁴ See Allegiance Sept. 30, 2002 Ex Parte Letter at 5, Attach. 4 (citing Verizon Maryland, Inc.'s response to a data request stating "[g]enerally speaking, Verizon MD does not reject DS1 requests for end users due to no facilities.").

1925 See Allegiance Sept. 30, 2002 Ex Parte Letter at 2.

1926 See infra Part VII.D.2.b. Specifically, in the UNE Remand Order, the Commission held that incumbent LECs must remove certain devices, such as bridge taps, low-pass filters, and range extenders, from basic copper loops in order to enable the requesting carrier to offer advanced services. UNE Remand Order, 15 FCC Rcd at 3775, para. 172. Although Verizon rejects unbundled DS1 loop orders where there is no apparatus or doubler case on the loop claiming that installation of these cases is "complex" – requiring a truck roll to either dig up existing cable or a "bucket" to reach aerial cables in order to splice open the cable sheath – it must perform similar activities to accommodate line conditioning requests. See Letter from W. Scott Randolph, Director – Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 4-5 (filed Oct. 18, 2002) (Verizon Oct. 18, 2002 No Facilities Ex Parte Letter); see also El Paso Galindo Decl. at para. 14 ("When an ILEC outside plant technician conditions a copper loop for xDSL by removing bridged tap and Load Coils in the loop, the work is generally performed by the same staff that performs rearrangement for DS1 services.").

¹⁹²⁷ See Cbeyond Nov. 23, 2002 Ex Parte Letter at 3. Furthermore, these routine modifications are generally provided by incumbent LECs within relatively short intervals. Mpower Reply at 29 (stating that Verizon's customers "[i]n almost every instance... can order service and have it installed within one week.").

technical resources than the routine modifications discussed above, and include rights-of-way issues, greater demands for on-site construction personnel, and substantial periods of actual construction. We believe, however, the physical work and technical requirements required to perform routine modifications described above do not implicate these concerns and are therefore encompassed in the incumbent LECs' unbundling requirements. 1929

- deploying bucket trucks to reach aerial cable, and installing equipment casings do not render a modification a substantial alteration or constitute the provision of a superior unbuilt network. Rather, these activities can be described as comprising the "routine, day-to-day work of managing an [incumbent LEC's] network." That is, rather than encompassing extensive delays caused by, for example, securing permits or rights-of-way, constructing new manholes or conduits, or installing altogether new terminals, the routine modifications described above generally require incumbent LEC personnel to visit sites within the existing and readily accessible incumbent LEC architecture. We therefore conclude that the local loop definition includes routine modifications and we require incumbent LECs to add types of electronics that incumbent LECs ordinarily attach to a loop for a customer requiring a DS1 loop, even if such electronics are not attached to a particular loop. 1932
- 638. Several carriers comment that the difficulties in accessing facilities includes access to dark fiber loops and transport, as well as to lit DS1 loops. ¹⁹³³ The requirement we establish for incumbent LECs to modify their networks on a nondiscriminatory basis is not limited to copper loops, but applies to all transmission facilities, including dark fiber facilities. For example, several state commissions have rejected incumbent LEC attempts to deny

¹⁹²⁸ Verizon Oct. 18, 2002 No Facilities Ex Parte Letter at 1-6.

¹⁹²⁹ See Cheyond Dec. 16, 2002 Ex Parte Letter at 2-3 (describing the routine tasks that Verizon performs to operate, maintain, and repair its network).

¹⁹³⁰ See Verizon Oct. 18, 2002 No Facilities Ex Parte Letter at 1-6.

Letter from Jake E. Jennings, NewSouth, to Christopher Libertelli, Legal Advisor, Office of Chairman Michael K. Powell, FCC, CC Docket Nos. 01-338, 96-98 at 3 (filed Nov. 6, 2002) (NewSouth Nov. 6, 2002 Ex Parte Letter). While we largely agree with NewSouth's proposed definition of UNE availability, we believe that adopting a definition that attempts to list various pieces of electronics provides an opportunity for gaming by incumbent LECs, i.e., if each and every piece of equipment that modifies a DS0 loop to a DS1 loop is not listed, the incumbent LEC may reject an order for no facilities available. Id. at 6-7. Instead, in addition to providing several examples of routine modifications incumbent LECs are required to provide we describe various factors, such as personnel requirements and timeliness, that determine whether the modification is routine or provides access to a superior quality network.

¹⁹³² We agree with Mpower that requiring incumbent LECs to attach electronics that they routinely provide to their customers does not constitute the provision of a new network element. Mpower Reply at 29-30; see also Covad Comments at 45; NewSouth Comments at 19-20; ALTS et al. Comments at 116-17; Sprint Comments at 20, 26.

¹⁹³³ See, e.g., Dominion Jan. 28, 2003 Aamoth Ex Parte Letter at 5 (claiming that incumbent LECs change their standard loop provisioning practice by laying new loop fiber without terminating it in order to avoid compliance with unbundling obligations).

competitive access to dark fiber where a competitive LEC seeks access to the network in the same manner as the incumbent LEC.¹⁹³⁴ Incumbent LECs must make the same routine modifications to their existing dark fiber facilities for competitors that they make for their own customers – including the work done on dark fiber to provision lit capacity to end users. Although the record before us does not support the enumeration of these activities in the same detail as we do for lit DS1 loops, we encourage state commissions to identify and require such modifications to ensure nondiscriminatory access.

639. We reject Verizon's argument that the Commission lacks authority to compel incumbent LECs to deploy new equipment to meet the demands of a competitive carrier. 1935 Verizon contends that the Commission cannot require incumbent LECs to *add* capacity or circuits, including constructing and modifying loops by adding electronics, where these facilities do not already exist. 1936 That is, Verizon argues that these modifications are not necessary to

¹⁹³⁴ See, e.g., New England Telephone and Telegraph Company d/b/a NYNEX, Decision D.P.U./D.T.E. 96-73/74, 96-75, 96-80/81, 96-83, 96-94 – Phase 3, at 48 (Mass. DTE Dec. 4, 1996) ("We therefore see little distinction between a splice performed on behalf of NYNEX and that performed for another carrier.").

¹⁹³⁵ Verizon Comments at 62; see also Verizon Reply at 99 n.310; Letter from Susanne Guyer, Senior Vice President, Federal Regulatory Affairs, Verizon, to William F. Maher, Chief, Wireline Competition Bureau, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 1-2 (filed Jan. 17, 2003), in Letter from Susanne Guyer, Senior Vice President, Federal Regulatory Affairs, Verizon, to Marlene H. Dortch, Secretary, FCC (dated Jan. 17, 2003) (Verizon Jan. 17, 2003 Guyer Ex Parte Letter). Verizon's policies concerning high-capacity loops have also arisen in context with its section 271 obligations, i.e., checklist item 4 - unbundled local loops. In the Verizon Pennsylvania 271 proceeding, several competing carriers alleged that Verizon violates the Commission's rules by refusing to provide high-capacity loops as UNEs unless all necessary equipment and electronics are present on the line and at the customer's premises. Application of Verizon Pennsylvania Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc. for Authorization to Provide In-Region, InterLATA Services in Pennsylvania, CC Docket No. 01-138, Memorandum Opinion and Order, 16 FCC Rcd 17419, 17469-70, para. 91 (2001). Ultimately, the Commission was unable to find in the Verizon Pennsylvania 271 proceeding that Verizon's high-capacity loop policy expressly violates the Commission's unbundling rules. Id. at 17470, para. 92 ("We disagree with commenters that Verizon's policies and practices concerning the provisioning of high-capacity loops, as explained to us in the instant proceeding, expressly violate the Commission's unbundling rules."). Instead the Commission relied on its policy that new interpretative disputes concerning the precise content of an incumbent LEC's obligations to its competitors, or disputes that the Commission's rules have not yet addressed and that do not involve per se violations of the Act or the Commission's rules, are not appropriately dealt with in the context of a section 271 proceeding. To the extent parties have specific disputes with Verizon's actual practice in implementing its high-capacity loop policies, the Commission explained that such disputes are best addressed in an alternative forum. Id. (citing Verizon Massachusetts Order, 16 FCC Rcd at 8993, para. 10).

¹⁹³⁶ Verizon states that it will fill a competitive LEC's unbundled high-capacity loop order where "the facilities necessary to provision the service requested exist and are currently available." Verizon Oct. 18, 2002 No Facilities Ex Parte Letter at 2. That is, Verizon states that will provision unbundled high-capacity loops where equipment need only be removed, but not when certain equipment must be added. The six situations where Verizon argues it is not required to undertake construction, i.e., where orders are rejected for "no facilities available" are: (1) no available copper spares, (2) no apparatus/doubler case, (3) no central office or remote terminal repeater equipment, (4) no riser cable or buried drop, (5) no fiber or multiplexer (DS1s and DS3s over fiber), or (6) no capacity for the service requested on existing multiplexer (DS1s and DS3s over fiber). Id. at 3-7. The percentages of competitive LEC high-capacity loop orders rejected by Verizon between January and June 2002 in the former Bell Atlantic South states for these six "no facilities" situations, respectively, are: 12%, 45.2%, 4.6%, 0.4%, 30.5%, and 3.5%. Id.

provide access to existing UNEs, they are the "creation of new or improved UNEs" that would unlawfully force an incumbent LEC to provide superior quality access. 1937 In particular, Verizon claims that the Commission is barred from requiring incumbent LECs to build a new loop, place new line cards or electronics on a circuit, and provide line conditioning, because these are all "substantial alterations to an ILEC's existing network." 1938 We disagree and, with the exception of constructing an altogether new local loop, we find that requiring an incumbent LEC to modify an existing transmission facility in the same manner it does so for its own customers provides competitors access only to a functionally equivalent network, rather than one of superior quality. Indeed, incumbent LECs routinely add a drop for a second line without objection. 1939 We conclude that with the exception of building a loop from scratch by trenching or pulling cable. because incumbent LECs are able to provide routine modifications to their customers with relatively low expense and minimal delays, requesting carriers are entitled to the same attachment of electronics. 1940 Lastly, to the extent that certain routine network modifications to existing loop facilities affect loop provisioning intervals, contained in, for example, section 271 performance metrics, we expect that states will address the impact of these modifications as part of their recurring reviews of incumbent LEC performance.

640. The Commission's pricing rules provide incumbent LECs with the opportunity to recover the cost of the routine network modifications we require here. 1941 State commissions

Verizon's current policy is to add certain electronics to available wire or fiber facilities to fill a [competitive] LEC's order for an unbundled DS1 loop. When Verizon receives an order for an unbundled DS1 loop, it checks whether the required common equipment is installed in the central office and has available ports or slots. If there is capacity, Verizon will install the necessary line cards. Verizon also will cross-connect the common equipment to the wire or fiber facility running to the end user. At the end user's premises, Verizon terminates the DS1 loop in the appropriate NID. This practice goes well beyond Verizon's legal obligations under the Act.

Id. at 64 n.218.

¹⁹³⁷ Verizon Comments at 63-64 (emphasis in original). Nonetheless, Verizon states that it will make certain changes to available wires in order to provision high-capacity loops. Specifically, in its comments, Verizon states that:

¹⁹³⁸ Verizon Comments at 63.

¹⁹³⁹ We note that it is only with respect to DS1 loops that certain incumbent LECs seem to argue that they are under no obligation to modify loops from their existing condition.

¹⁹⁴⁰ The record reflects that Verizon provides the routine modifications listed above with minimal delay, in most cases, to their own retail customers. Covad Comments at 51. We also dismiss Verizon's claim that the availability of special access services on a par with Verizon's own retail customers is fully compliant with the Act, and in particular Verizon's recently instituted "procedure under which it voluntarily allows carriers whose UNE orders are rejected for lack of facilities to purchase Verizon's special access service and later convert it to a UNE after a minimum in-service period (provided it meets the conversion criteria established by the Commission)." Verizon Jan. 17, 2003 Guyer Ex Parte Letter at 1, 3. We find this policy to be discriminatory on its face.

¹⁹⁴¹ See Local Competition Order, 11 FCC Rcd at 15847, para. 682 ("Directly attributable forward-looking costs include the incremental costs of facilities and operations that are dedicated to the element. Such costs typically include the investment costs and expenses related to primary plant used to provide that element."); see also id. at (continued....)

have discretion as to whether these costs should be recovered through non-recurring charges or recurring charges. We note that the costs associated with these modifications often are reflected in the recurring rates that competitive LECs pay for loops. Specifically, equipment costs associated with modifications may be reflected in the carrier's investment in the network element, and labor costs associated with modifications may be recovered as part of the expense associated with that investment (e.g., through application of annual charge factors (ACFs)). The Commission's rules make clear that there may not be any double recovery of these costs (i.e., if costs are recovered through recurring charges, the incumbent LEC may not also recover these costs through a NRC). 1942

641. A number of parties filed petitions for reconsideration of the *UNE Remand Order* asking the Commission to find that charges for certain types of network modification (loop conditioning, unbundling of IDLC loops) were inconsistent with the Commission's TELRIC pricing rules. 1943 We deny these petitions. The petitions raise complicated economic and technical issues that the Commission would prefer to address on a more complete and up-to-date record. Accordingly, we will include these issues in the Commission's upcoming proceeding on TELRIC-related issues. In the interim, we leave it to state commissions to decide in the first instance whether a particular cost should be recovered from a competitive LEC through a recurring charge, a non-recurring charge, or not at all, in accordance with the principles identified above. 1944 A state commission could decide, for example, that loop conditioning costs should be recovered through a NRC only in extraordinary situations, such as removing load coils on loops that exceed 18,000 feet in length, 1945 and that any other conditioning costs should be recovered in recurring charges just like other loop maintenance costs.

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15851, para. 691 ("Costs must be attributed on a cost-causative basis.	Costs are causally-related to the network
element being provided if the costs are incurred as a direct result of pr	roviding the network elements, or can be

avoided, in the long run, when the company ceases to provide them.").

economic cost of providing the applicable element.").

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¹⁹⁴² 47 C.F.R. § 51.507(e) ("Nonrecurring charges shall be allocated efficiently among requesting telecommunications carriers, and shall not permit an incumbent LEC to recover more than the total forward-looking

See Petition of MCI WorldCom Feb. 17, 2000 Petition for Reconsideration at 15-18 (loop conditioning); Rhythms Netconnections, Inc. and Covad Communications Company Joint Petition for Reconsideration, CC Docket Nos. 95-185, 96-98 (filed Jan. 21, 2000) (loop conditioning); @Link Networks, Inc. et al. Joint Petition for Reconsideration, CC Docket No. 96-98 (filed Feb. 17, 2000) (loop conditioning); McLeodUSA Telecommunications Services, Inc. Petition for Reconsideration, CC Docket No. 96-98 (filed Feb. 17, 2000) (unbundling of IDLC loops).

¹⁹⁴⁴ Accordingly, we grant WorldCom's Petition for Clarification to the extent it seeks clarification that states have discretion to conclude that loop conditioning costs are not forward-looking costs or that they are more appropriately recovered through recurring charges for the loop. *See* Petition of MCI WorldCom Feb. 17, 2000 Petition for Clarification at 13-15.

The Commission recognized in the *UNE Remand Order* that "networks built today should not require voice-transmission enhancing devices on loops of 18,000 feet or shorter." *UNE Remand Order*, 15 FCC Rcd at 3784, para. 193.

b. Line Conditioning

- 642. As noted above, we conclude that incumbent LECs must provide access, on an unbundled basis, to xDSL-capable stand-alone copper loops because competitive LECs are impaired without such loops. 1946 Such access may require incumbent LECs to condition the local loop for the provision of xDSL-capable services. 1947 Accordingly, we readopt the Commission's previous line and loop conditioning rules for the reasons set forth in the *UNE Remand Order*. 1948 Line conditioning is necessary because of the characteristics of xDSL service that is, certain devices added to the local loop in order to facilitate the provision of voice service disrupt the capability of the loop in the provision of xDSL services. In particular, bridge taps, load coils, and other equipment disrupt xDSL transmissions. 1949 Because providing a local loop without conditioning the loop for xDSL services would fail to address the impairment competitive LECs face, we require incumbent LECs to provide line conditioning to requesting carriers.
- 643. Line conditioning does not constitute the creation of a superior network, as some incumbent LECs argue. ¹⁹⁵⁰ Instead, line conditioning is properly seen as a routine network modification that incumbent LECs regularly perform in order to provide xDSL services to their own customers. As noted above, incumbent LECs must make the routine adjustments to unbundled loops to deliver services at parity with how incumbent LECs provision such facilities for themselves. Similarly, in order to provide xDSL services to their own customers, incumbent LECs condition the customer's local loop. ¹⁹⁵¹ Thus, line conditioning is a term or condition that

¹⁹⁴⁶ See supra Part VI.A.4.a.(v)(a).

In the UNE Remand Order, the Commission made clear that incumbent LECs must condition loops to allow requesting carriers to offer advanced services, and identified the removal of bridge taps, load coils, and similar devices as part of this obligation. UNE Remand Order, 15 FCC Rcd at 3775, para. 172. The Commission specifically rejected the contention that the Eighth Circuit's holding on "superior quality" overturned the rules requiring incumbents to provide conditioned loops even where the incumbent itself is not providing advanced services to those customers. Id. at 3775, para. 173 ("We find that loop conditioning, rather than providing a 'superior quality' loop, in fact enables a requesting carrier to use the basic loop."). The Commission subsequently refined the conditioning obligation to cover loops of any length, to recognize the potential degradation of analog voice service, and to enable incumbent LECs to charge for conditioning loops. Line Sharing Order, 14 FCC Rcd 20912, 20951-53, paras. 81-87.

We note that the USTA court did not expressly opine on the Commission's line and loop conditioning rules.

¹⁹⁴⁹ See Telcordia Technologies, Inc. NOTES ON DSL at 2-10 to 2-16 (describing limitations of xDSL service); Padmanand Warrier and Balaji Kumar, XDSL ARCHITECTURE 95-97 (2000) (describing the effect of bridge taps, load coils, various gauges of copper cable, and analog/digital conversions on xDSL transmissions); see also Line Sharing Order, 14 FCC Rcd at 20951-52, para. 83.

¹⁹⁵⁰ See Verizon Jan. 17, 2003 Guyer Ex Parte Letter at 3-4 (arguing that line conditioning constitutes the creation of a superior network).

¹⁹⁵¹ We note that all BOCs offer xDSL service throughout their service areas. See, e.g., Verizon, Verizon Online DSL for Your Home Including Personal or Office Use and Price Packages for DSL, http://www22.verizon.com/ForHomeDSL/channels/dsl/forhomedsl.asp (describing Verizon's xDSL offerings for residential customers).

incumbent LECs apply to their provision of loops for their own customers and must offer to requesting carriers pursuant to their section 251(c)(3) nondiscrimination obligations. We therefore agree with the commenters that argue that requiring the conditioning of xDSL-capable loops is not mandating superior access, ¹⁹⁵² and reject Verizon's renewed challenge that the Commission lacks authority to require line conditioning. ¹⁹⁵³ Competitors cannot access the loop's inherent "features, functions, and capabilities" unless it has been stripped of accretive devices. We therefore view loop conditioning as intrinsically linked to the local loop and include it within the definition of the loop network element. ¹⁹⁵⁴

644. As a final matter, we determine that requiring incumbent LECs to perform line conditioning advances our section 706 goals. Specifically, line conditioning speeds the deployment of advanced services by ensuring that competitive LECs are able to obtain, as a practical matter, a local loop UNE with the features, functions, and capabilities necessary to provide broadband services to the mass market. Consistent with our analysis for mass market loops, then, we conclude that the unbundling obligations of incumbent LECs include conditioning loops for the provision of xDSL services.

c. Special Construction of Transmission Facilities

645. We do not require incumbent LECs to construct transmission facilities so that requesting carriers can access them as UNEs at cost-based rates. As the Commission concluded in the *UNE Remand Order*, although "an incumbent LEC's unbundling obligation extends throughout its ubiquitous transport network, including ring transport architectures, we do not require incumbent LECs to construct new transport facilities to meet specific competitive LEC point-to-point demand requirements for facilities that the incumbent LEC has not deployed for its own use." Although we recognize that our conclusion in this Order not to unbundle

¹⁹⁵² See, e.g., NuVox et al. Reply at 43; WorldCom Reply at 42-43.

¹⁹⁵³ Verizon Comments at 63 (arguing that "loop conditioning plainly is an unlawful requirement to provide a superior quality network."). More specifically, we do not accept Verizon's contention that line conditioning is a "significant construction activity" that provides a "superior quality network facility." Jan. 17, 2003 Verizon Guyer Ex Parte Letter at 4.

As the Commission noted in the *UNE Remand Order*, the Eighth Circuit expressly affirmed the Commission's determination that section 251(c)(3) requires incumbent LECs to provide modifications to their facilities in order to accommodate access to network elements. *UNE Remand Order*, 15 FCC Rcd at 3775, para. 173 (citing *Iowa Utils*. *Bd. v. FCC*, 120 F.3d at 813, n.33). With respect to making routine network modifications, the Eighth Circuit stated: "Although we strike down the Commission's rules requiring incumbent LECs to alter substantially their networks in order to provide superior quality interconnection and unbundled access, we endorse the Commission's statement that 'the obligations imposed by sections 251(c)(2) and 251(c)(3) include modifications to incumbent LEC facilities to the extent necessary to accommodate interconnection or access to network elements." *Iowa Utils. Bd. v. FCC*, 120 F.3d at 813, n.33 (citing *Local Competition Order*, 11 FCC Rcd at 15602-03, para. 198).

¹⁹⁵⁵ As we noted in our unbundling analysis for mass market loops, section 706 informs the manner in which we craft our unbundling obligations. *See supra* Part VI.A.4.a.(iv).

¹⁹⁵⁶ *UNE Remand Order*, 15 FCC Rcd at 3843, para. 324.

inter-network transport facilities, including circuits from the incumbent LEC network to CMRS to base stations and mobile switching centers, will diminish the significance of this issue for many commenters, the issues surrounding special construction play an important role in infrastructure growth for new channel termination and transport facilities.

- 646. At present, incumbent LECs generally offer to build out transmission facilities to a customer's specific needs through the special construction provisions of their special access tariffs or a stand-alone special construction tariff. These provisions typically contain NRCs and termination liabilities over a fixed term to ensure compensation in the event that the customer defaults or otherwise cancels its contract prior to the expiration of its term commitment. Because our unbundling rules do not require incumbent LECs to be construction agents for requesting carriers, this limitation on the incumbent LEC unbundling obligation provides a critical safeguard against excessive unbundling at UNE prices. To the extent that commenters require such special construction and new facilities, they may purchase this as a service from the incumbent LEC special access tariff.
- 647. We reject the argument advanced by certain incumbent LECs, however, that specially constructed facilities, once constructed, are to be permanently exempted from unbundling obligations. These carriers contend that all of their SONET rings are built to the customer's definitive request, and that such customized facilities are not required to be unbundled by future requesting carriers. In support of this position, the incumbent LECs rely heavily on the *UNE Remand Order*'s statement that "[n]otwithstanding the fact that we require incumbents to unbundle high-capacity transmission facilities, we reject Sprint's proposal to require incumbent LECs to provide unbundled access to SONET rings." Regardless of the Commission's decision not to adopt a specific proposal in a prior proceeding, we clarify that an incumbent LEC's unbundling obligation includes all deployed transmission facilities in its

These facilities include entrance facilities, connections from the incumbent LEC tandem office to a CMRS mobile base station, and other inter-network facilities for which no unbundling is required. See supra Part VI.C.

¹⁹⁵⁸ See, e.g., National Exchange Carriers Association, Tariff FCC No. 3 (Special Construction), § 2.6.4.

¹⁹⁵⁹ See, e.g., Sprint Comments at 54 (recommending conditions where an incumbent LEC is obligated to undertake construction that include where the requesting carrier is willing to pay TELRIC-based non-recurring charges).

BellSouth Comments at 56-57; BellSouth Reply at 41-42; see also Qwest Comments at 40 (explaining that it undertook construction for CMRS providers pursuant to the specification of those carriers); Letter from John W. Kure, Executive Director – Federal Policy and Law, Qwest, to Magalie Roman Salas, Secretary, FCC, CC Docket No. 96-98, Attach. at 3 (filed Sep. 26, 2001) (arguing that optic fiber rings built for wireless carriers are not part of the Qwest "ubiquitous transport network."). As we explain in Part VI.C., supra, our interoffice transport rules are technology neutral, and SONET rings are subject to unbundling obligations in the same manner as any other transport facility. Although many commenters raise issues of special construction and SONET ring unbundling in the context of CMRS provider access to UNEs, our discussion here addresses all facilities.

BellSouth Reply at 42 (citing UNE Remand Order, 15 FCC Rcd at 3843, para. 324); Qwest Comments at 40.

network, unless specifically exempted in this Order. ¹⁹⁶² So long as a requesting carrier seeks access to an already existing transmission facility for which it is impaired, we do not deny access simply because the facility was constructed to the specifications of that carrier or another carrier.

648. To ensure that no incumbent LEC is obligated to build out facilities at TELRIC pricing, we clarify that the tariffed termination liabilities for special construction apply to the conversion of special access circuits built to customer specification. In this manner, no incumbent LEC will be uncompensated for constructing facilities – the tariffed non-recurring charges and termination liabilities that protect incumbent LECs from uncompensated build-outs where a competitor seeks to terminate a contract provide the same protection against UNE conversion. Competitors have commented broadly that no termination liabilities should apply to any conversions from special access to UNEs. While much of their focus appears directed toward those penalties triggered by long-term contracts, including stand-alone loop facilities, we are not persuaded to grant them relief from termination liabilities for special construction. 1965

VIII. REMAINING ISSUES

A. Section 271 Issues

1. Background

649. As detailed above, section 251 of the Act is the source of incumbent LECs' unbundling obligations. Section 251(c)(3) requires all incumbent LECs (including BOCs) to provide "nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory." Section 251(d)(2) directs the Commission to determine whether access to particular proprietary

¹⁹⁶² We affirm that for those facilities that incumbent LECs do not have to provide on an unbundled basis to competitors, incumbent LECs may deploy them in their networks without making them available as UNEs on a nondiscriminatory basis.

¹⁹⁶³ Accordingly, the incumbent LEC concerns about lack of compensation are misplaced. See, e.g., Qwest Comments at 40 ("Qwest agrees to undertake this construction only because the CMRS providers promised to compensate Qwest the tariffed price for these circuits. Qwest would not have constructed, nor would it have been obligated under the Commission's rules to construct, the circuits at the non-compensatory rates demanded by the CMRS providers.") (citations omitted).

¹⁹⁶⁴ See, e.g., NuVox et al. Reply at 52 ("As part of this [fresh look] proposal, all special access circuits (whether equivalent to standalone UNEs, EELs or some other UNE combination) should be subject to conversion without termination penalties or imposition of nonrecurring charges other than a cost-based conversion charge designed exclusively to recover administrative expenses associated with converting associated billing from special access to UNE billing."); ALTS et al. Comments at 103 ("Furthermore, the FCC should mandate that no termination liability charges are to be assessed to CLECs converting circuits to UNE pricing.")

¹⁹⁶⁵ We address the specific issue of granting "fresh look" relief for conversions of EELs ordered during the vacatur of the Commission's combination rules in Part VIII.C. below.

¹⁹⁶⁶ 47 U.S.C. § 251(c)(3).